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ABSTRACT

In 1991, the Saskatchewan Institute of Applied Science and Technology (SIAST) initiated a study of factors affecting student persistence, finding that high employment rates in particular sectors were related to higher rates of student attrition. In 1994, a follow-up study was conducted of the career/educational paths of 1,498 respondents from the 1991 study to determine whether students who continued training demonstrated significantly different characteristics, attitudes, and beliefs than those who did not. Major findings, based on 409 responses, included the following: (1) by 1994, 85% of the students had completed their SIAST program, 29% had enrolled in some further training, while only 6% of those continuing had changed their field of study, generally going into computer related fields; (2) the most common reason cited for continuing training was improved job prospects as a result of more education; (3) students who continued their education had expressed higher career goals in the 1991 study than those who did not; (4) program completers had higher academic averages before entering SIAST in 1991 than non-completers; and (5) 27.7% of those who continued had attended university before starting their SIAST program, compared to 22.2% of all first year students. Data tables are included. The survey instrument is appended. (HAA)

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SIAST Longitudinal Study

Prepared by:

SIAST Research and Development

July 1995
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Gerlinde Sarkar
Coordinator, Research and Development
SIAST Secretariat
July 1995

Executive Summary

This Longitudinal Study is a continuation (Part III) of the 1991 SIAST Retention Study, in which we found that student attrition rates show a strong positive correlation with employment rates in particular occupational sectors. In other words, if it is relatively easy to find employment, students are more likely to leave before completing their program of study. If employment rates are low in that occupation, then students are more likely to persist in order to gain the extra edge in the employment market.

The purpose of this Longitudinal Study was to follow the career paths of previous SIAST students and to determine whether students who continue training demonstrate significantly different characteristics, attitudes, and beliefs.

The major findings are as follows:

- 85% of first year students (in 1991) who responded to the study have completed their program.
- 29% of all previous students who responded to Part III had enroled in some further training after the 1991 program.
- 53% of those having taken further training took this at a SIAST institute and 19% took it at a university.
- Only 6% of those continuing had changed their field of study by 1994, generally going into computer related areas. The majority of the additional training was in the same field of study as the first program.
- 32% of respondents to Part III in 1994 indicated that they are planning to pursue further education.
- 16% of the 1994 respondents would like to take further education at the university level.
- 10% of the 1994 respondents plan to change their career field.
- Perceived improved job prospects as a result of more education was the major reason for continuing education.
- Continuers were less sure about their career choice in 1991.
- Continuers indicated a higher career goal in 1991.
- Continuers (and completers) believed more strongly that completing a certificate or diploma would help them find employment.
- Continuers believed more strongly (in 1991) that they would be able to earn a higher income with a completed certificate or diploma.
- Fewer completers and continuers said in 1991 that they would take a job right now in preference to first finishing the program.
- Completers had the highest academic average before entering the program in 1991.

- Continuers were more likely to have attended university before starting their SIAST program in 1991; 27.7% had some university education compared to 22.2% of all first year students.
- 9% of first year students were ABE graduates. Continuers were less likely to be ABE graduates.
- Single respondents were more likely to continue their education, but less likely to complete the program than first year students overall.
- Continuers were less likely to have dependent children living with them.
- Male students were more likely to continue.
- Aboriginal first year students in 1991 were less likely to continue their education.
- Disabled students were more likely to continue their education.

1.0 Introduction

The concept of "Lifelong Learning" is well entrenched and most people recognize the importance of continuous education in order to deal effectively with changes that occur in our environment. Does this learning promote a definite career path or is this learning rather haphazard and random? Do people radically switch career paths or do they build on what was already learned? Are there certain characteristics of these "continuous learners" that distinguish them from those who do not choose to continue with formal learning?

These types of questions gave the impetus to a long-term study of students who entered a Certificate (one year) or Diploma (two year) program at the Saskatchewan Institute of Applied Science and Technology in 1991.

1.1 Background

The Saskatchewan Institute of Applied Science and Technology (SIAST) is a provincial technical institute located in the four major cities of the province of Saskatchewan. The Research and Development department at the SIAST Secretariat undertook a three part study in 1991.

The results of Part I and II were published in February 1993 as the SIAST Retention Study. The objectives of the SIAST Retention Study were to determine the factors that impact on student retention, to identify student populations facing higher risk of non-completion, and to determine the impact of economic fluctuations and the resulting labour market prospects on the retention of students. We found that students were more likely to persist in a program and complete it, if it was more difficult to obtain a job in that occupation (measured by the results of the previous graduate employment records). In other words, students felt that having a certificate or diploma would give them the extra edge to be able to secure employment, and hence they were more likely to stay and complete the program.

Part III, which is the Longitudinal Study, was conducted in September 1994 and the results are contained in this report.

1.2 Objective of the Longitudinal Study

The objective of Part III of the SIAST longitudinal study is:

- to follow the career paths of previous SIAST students,
- to identify student characteristics of "continuous learners".

1.3 Applications

By analyzing the data from the three parts of the study, we can identify what career paths are most frequently followed and in which areas career laddering opportunities need to be further developed within SIAST and with other educational institutions. The data will be useful to plan for advanced training events to assist former students to continually upgrade and improve their skills in their chosen occupation or to provide access to a next level of training.

2.0 Methodology

The data for all three parts of the study were obtained by using questionnaires that were mailed to the participants of the study. For Part I, a questionnaire was mailed in September 1991 to all first year on-campus SIAST Certificate and Diploma students (2,822) registered at that time.

For Part II, a follow-up questionnaire was mailed in June 1992 to all respondents of Part I (1,557). In September 1994, questionnaires were mailed to the respondents of Part I (less undeliverable surveys from Part II). 1,498 questionnaires were sent out. We received 409 completed questionnaires. By this time many former students had moved and it was difficult to trace their present location. The results of the longitudinal study are based on the 409 responses.

3.0 Other Research in This Area

Annual participation rates in Canadian adult education have increased from about 4% in 1960[1] to 20% in 1983 with further steady increases since then[2].

According to the OISE Survey of Educational Issues, which drew on the Gallup Poll[3], the general participation in adult education was 21% in 1986 and 31% in 1990.

People's motives for participating in continuing education activities have changed over the years. General personal development was cited as the most important reason in earlier years. In the 1980s, employment related objectives became more important[4]. This shift is in accord with the public perception that recent technological changes increase the skill and training requirements for individual types of jobs and the labour force in general[5].

The participation and growth in demand for continuing education has continued to grow despite persistent barriers such as the obstacles of very limited financial support from either employer or government, lack of accessible information about or coordination between educational agencies, and restrictive admission and scheduling practices[6].

The most notable yet disturbing finding in the research about the demand for advanced or continuing adult education is the chronic under utilization within the paid workplace[5]. Researchers have extensively documented a tendency for many employers to inflate required entry credentials beyond education actually needed to perform job tasks. (Berg, 1970; Collins, 1979; Blackburn and Mann, 1979; Hunter 1988). These researchers have found that about one-fifth of the entire employed labour force are underemployed. At least one third of all workers under twenty-five and more than one-third of all workers with post-secondary credentials are now underemployed in Ontario. Other Canada-wide surveys of recent post-secondary graduates confirm this trend (Clark and Zsigmond 1981; Nobert, 1990).

To resolve the discrepancies between the popular educational demands of adults and the chronic workplace under utilization of workers at their workplace, greater choice must be provided to the "continuing learners" to choose incremental formal, customized short-term studies which meet their specific educational needs.

---

[1] Selman, G., and P. Dampier (1991). *The Foundations of Adult Education in Canada*. Toronto: Thompson Educational Publishing.

[2] Devereaux, M. (1985). *One in Every Five*. Ottawa: Statistics Canada and Education Support Section, Secretary of State.

[3] Gallup Canada (1990). "1 in 4 Adults Set for Classes." *Toronto Star*. (15 Nov.) A14.

[4] Waniewiez, I. (1976). *Demand for Part-time Learning in Ontario*. Toronto: OISE/OELA.

[5] Livingstone, D.W., D. Hart and L. Davie (1991). *Public Attitude Toward Education in Ontario*. Toronto: OISE.

[6] Canadian Association for Adult Education (1982). *From the adult's point of view*. Toronto: CAAE/ICEA.

4.0 Results of the Study

In Part I, 2,822 questionnaires were sent out to all SIAST on-campus first year Certificate and Diploma students. The proportion of students by institute was: Kelsey 38.2%, Palliser 24.9%, Wascana 26.3%, and Woodland 10.5%. The overall response rate for Part I was 55.2% or 1,557 completed questionnaires were received.

Part II of the study investigated whether students had completed their program and what reasons impacted on the decision to withdraw. 1,557 questionnaires were sent in June 1992 and 720 were received; a response rate of 46%. The non-completion rate for SIAST first year students overall was 14.5%. The proportion of respondents by institute remained similar to Part I.

Part III of the study investigated whether the original students (enroled in 1991) had taken further training by September 1994. 1,498 questionnaires were mailed out in September 1994 and 409 completed were received, a response rate of 29%. 218 questionnaires were returned "undeliverable" since many students had moved and could not be traced since they had taken the program at SIAST in 1991. For a complete breakdown of response rates by program, refer to Appendix A.

Throughout this report we will make reference to participants of Part I, Part II, and Part III of this long-term study.

4.1 Responses to the Part III Questionnaire

This first section will report the results of the Part III questionnaire. In the next section responses will be compared by "completers" and "continuers".

Table 1 Response Rates and Percent Continuing By Institute

Institute	Questionnaires Sent	Questionnaires Returned Undeliverable	Completed Questionnaires	Response Rate	Have Taken Further Training	
	#	#	#	%	#	%
Kelsey	558	67	159	28.5%	39	24.5%
Palliser	352	38	98	27.8%	38	38.8%
Wascana	451	89	130	28.8%	33	25.4%
Woodland	137	24	22	16.1%	8	36.4%
Total	1,498	218	409	27.3%	118	28.9%

The proportions of the respondents by institute to the original study (Part I) were similar for Kelsey and Palliser, but higher for Wascana for Part III with 31.3% compared to 26.3% in 1991. We have relatively fewer respondents in Part III who were originally Woodland students, 5.4% in 1994 compared to 10.5% in 1991.

Table 2 **In what SIAST program were you enroled in September 1991?**

	Part III		Part I
Institute	**#**	**%**	**%**
Kelsey	159	38.9%	38.2%
Palliser	98	24.0%	26.3%
Wascana	130	31.8%	26.3%
Woodland	22	5.4%	10.5%
Total	**409**	**100%**	**100%**

4.1.1 Program Completion

Table 3 **Did you complete the 1991 program?**

	Number	Percent
Yes	345	84.4%
No	64	15.6%

The percent of non-completion remains relatively stable at about 15% for Part II, as well as Part III respondents. Of the 345 that completed the program, about 11% of students took more than one year to complete a certificate program and two years to complete a diploma program. If we were to count completion after the standard one or two year period, completion rates would drop to 75%.

Table 4 **When was the 1991 program completed?**

Year	#
1992	165
1993	142
1994	32
No Year Given	6
Total	**345**

Rate of Program Completion - 85%

4.1.2 Continuing Students

Did you take further training?

A total of 118 or 28.9% of the 409 that responded to the survey took further training after being enroled in the program that they took in 1991. The majority of this additional training was taken at SIAST (52.9%). Further analysis of these 118 "continuers" shows that 83% had completed their original program (in which they were enroled in 1991) and 17% had not completed the original 1991 program. Therefore, there does not appear to be any significant difference between completers and non-completers in terms of continuing further training.

Table 5 Where have you taken this additional training?

Institution	#	%
SIAST:		52.9%
Kelsey	33	
Palliser	21	
Wascana	19	
Woodland	1	
University:		19.3%
University of Saskatchewan	13	
University of Regina	9	
Other university	5	
Other:		27.9%
Regional College	6	
Private Trainer	2	
Other	31	
Total	**140**	**100%**

Some respondents indicated more than one institution where they have taken additional training, therefore the total is higher than 118.

The majority of the additional training was some kind of upgrading or continuing education in the same general field as the original program. However, we also had a number of respondents who withdrew from the previous (1991) program and then took training at a lower level, such as Practical Nursing rather than the original Diploma Nursing program. In the industrial programs, many are pursuing apprenticeship level training after a pre-employment program.

Changing the field or area of study altogether was not common. **Only seven respondents (6%) changed their field** and took training in unrelated programs; almost all of these went into computer related training.

Rate of Continuing Education - 29%

4.1.3 Reasons for Continuing Education

Table 6 Why did you take the training after the 1991 program?

Reason	#	% based on total respondents
more job opportunities	76	18.6%
greater interest in this field	47	11.5%
higher pay	38	9.3%
less difficult program	5	1.2%
Total	**166**	

Respondents could provide multiple reasons. Improved employment prospects provide motivation to become more qualified in the chosen occupational field. 67 indicated that they had completed this training, with 14 of these completing in 1993 and 38 having completed in 1994. The remainder did not indicate when training was completed. 59 stated that they are still going to school for further training. Since many respondents to the Part III questionnaire are currently still taking this "continuing education activity", there are no completion rates yet for these continuers which can be compared to the 85% completion rate of Part II.

Table 7 Why did you not complete this additional training?

Reason	#
took leave of absence	1
transferred to other institution	1
changed my career plan	1
had financial problems	3
wanted practical experience	2
family responsibilities	2
found course work too difficult	6
had a job offer	6
other	51
Total	**73**

The reason under "other" was not always specified, but 59 respondents are still going to school for further training according to the next question. Some of these may actually have completed some educational activity and be on the third or fourth round of taking some upgrading or continuing education.

4.1.4 *Present Status*

Table 8 What is your present status?

Status	#	%
full-time employed	248	60.6%
part-time employed (less than 30 hours per week)	81	19.8%
self-employed	29	7.1%
going to school for further training	59	14.4%
not employed but not looking for work	12	2.9%
not employed and looking for work	30	7.3%
Total	**459**	

The total number is higher than 409 since respondents could provide multiple answers. For example, those who are full-time employed are also frequently going to school. 20 full-time employed, 6 part-time employed, and 13 self-employed indicated that they are also going to school for further training. The graph below represents the number of respondents by their employment status.

Figure 1 Present Employment Status of Respondents

(n=400)

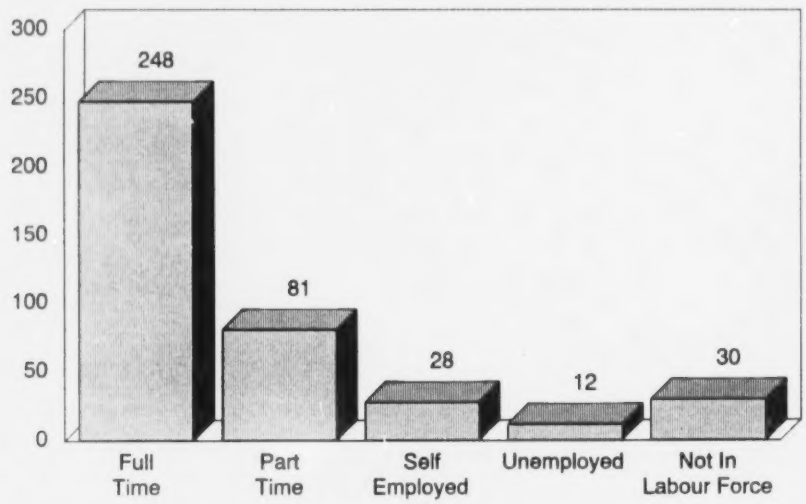


Table 9 **Are you currently working in the field in which you trained in September 1991?**

	#	%
Yes	267	65.6%
No	140	34.4%
Total	**407**	**100%**
No response	2	

Of those that are currently working in their field of training, the average number of months that respondents worked in this field was 21 months, with the most frequent number (mode) 12 months. The median was 16 months (50% fall below and 50% are above this number).

Of the 140 who no longer work in the field related to the program in which they were enroled in 1991, 59 have worked in this field at some time, with the average number of months being 15, mode 12 months, and median 9 months.

The reason given by those who have not worked at all in their field: 32 stated that there were no jobs in this area, five stated that they no longer liked the field, and five had no work experience. Three became disabled since taking the program.

4.1.5 Intent to Pursue Further Training

When asked whether they think that they will pursue further training in the future, 129 (31.5%) replied positively.

95 indicated that they would take continuing or upgrading training in the same field or subject area.

20 would like to take education at the university level in the same field (one additional respondent was going to pursue a general Arts degree).

13 indicated that they were going to change their field of study; nine of these were going into computer related fields and four into other unrelated fields.

32% of Respondents are Planning to Pursue Further Education

4.2 Comparison to Responses of Part I and II

In this section, we will investigate whether students who completed the first program in 1991 (called completers), and those who took further training by September 1994 (called continuers) responded differently in the first questionnaire (Part I). In other words, did the subsequent completers and continuers show different characteristics? Did they have a stronger goal commitment? Did they have higher high school grades or aspire to higher educational goals in 1991 when they started as first year students? The answers of all responding first-year students are labelled "all first-year".

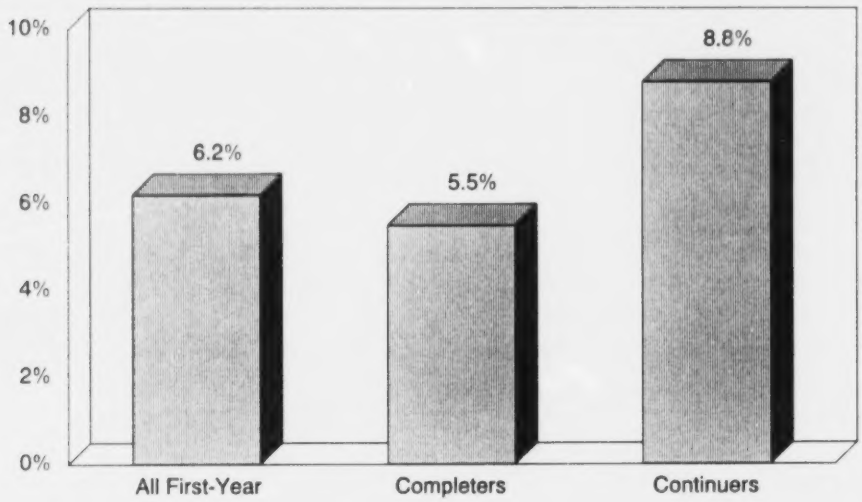
The questions that were chosen for the analysis are provided as stated and numbered in the original questionnaire.

4.2.1 Goal Commitment

#3. How sure are you of your choice of career goal?

Continuers were slightly less sure about their career goals; completers were more sure about career goals. 8.8% of continuers indicated in 1991 that they are "not sure" of their career goal, compared to 5.5% of the completers and 6.2% of the total responding 1991 first year students.

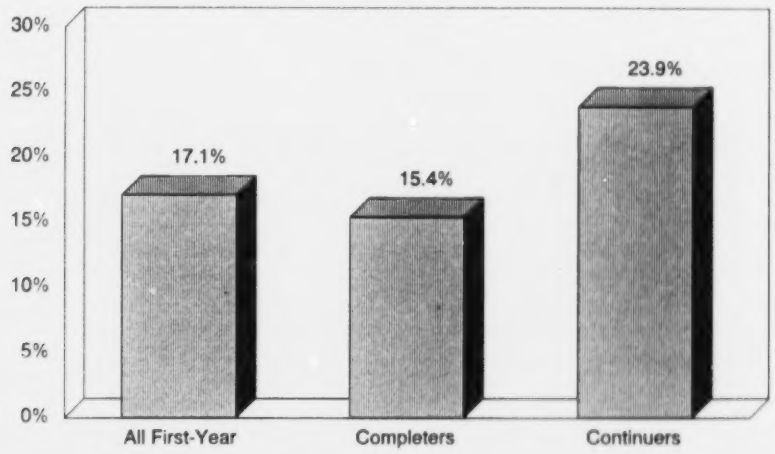
Figure 2 Uncertain About Career Goal in 1991



#5. During the next 5 - 10 years, what is the highest level of education you plan to achieve?

A higher percentage of the continuers (23.9%) indicated "obtaining a four year university degree" as their highest educational goal in 1991. 15.4% of completers and 17.1% of the overall students entering first year had this goal.

Figure 3 Four Year University Degree as Highest Educational Goal



#7. Do you believe that you will be able to earn a higher income with a certificate or diploma than without such qualifications?

Students overall have a strong believe that completing a certificate or diploma will increase their chances for employment. Completers and continuers are slightly stronger in this belief; 98.2% and 98.1% respectively compared to 97.6% of all first year students.

A higher percentage of continuers (98.2%) believed that having a certificate or diploma will enable them to earn a higher income, compared to 95.2% of completers and all first year students.

#8. If you were offered a job right now that requires your skills and which pays the going wage rate, would you take the job now or finish the program in which you are enroled?

The number of respondents who would definitely take the job in preference of finishing their program is very small, 5.5% overall and 4.4% for completers and continuers.

4.2.2 *Academic Background*

#21. Which one of the following best describes your high school grades?

Table 10 High School Grades

	All	Completers	Continuers
	%	%	%
excellent	21.2%	26.7%	22.3%
good	57.8%	56.7%	58.9%
average	20.1%	16.0%	17.9%
below average	1.0%	0.5%	0.9%

Completers had the highest percentage of "good" and "excellent" high school grades. 83.5% of completers, compared to 81.3% of continuers and 78.9% of all first year respondents, had good to excellent grades. Higher grades do seem to indicate that students are more likely to complete their program of study.

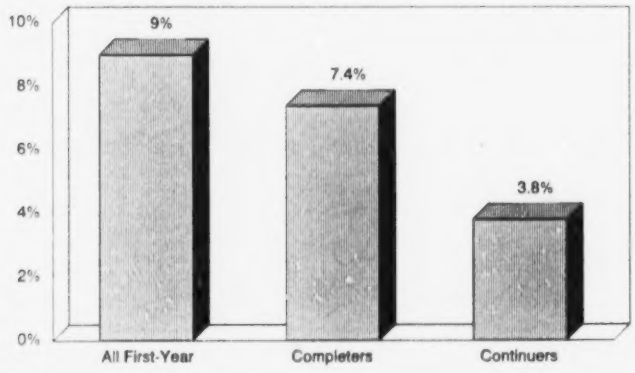
#22. Have you ever attended University?

Continuers are more likely to have attended university (27.7%) before entering their first year at SIAST, compared to completers 26.1% and first year respondents overall 22.2%. This may also explain why continuers have set themselves higher final educational goals.

#23. Have you completed an Adult Basic Education (ABE) program?

About 9% of all first year students were graduates from the Adult Basic Education (ABE) program. Continuers were less likely ABE graduates.

Figure 4 ABE Graduates

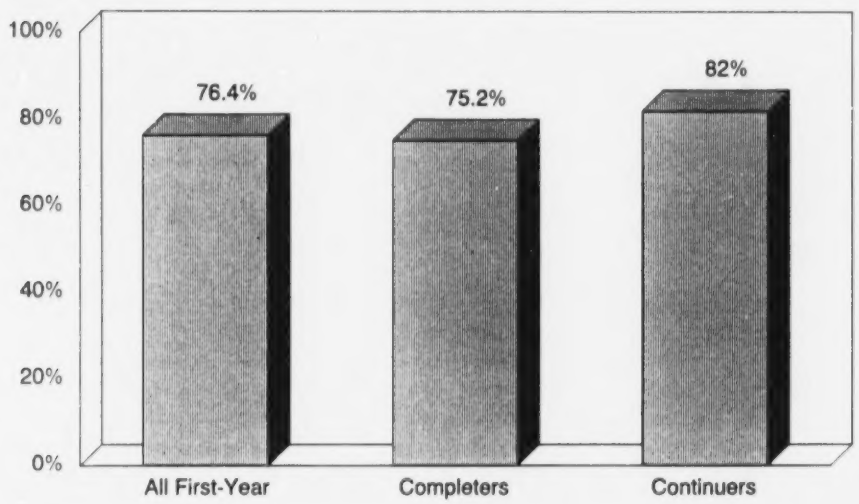


4.2.3 Demographic Characteristics

#25. Are you single (including divorced, separated, widowed) or married (including common law)?

Single respondents were more likely to continue their education, but less likely to complete the program than the first year students overall.

Figure 5 Single Students

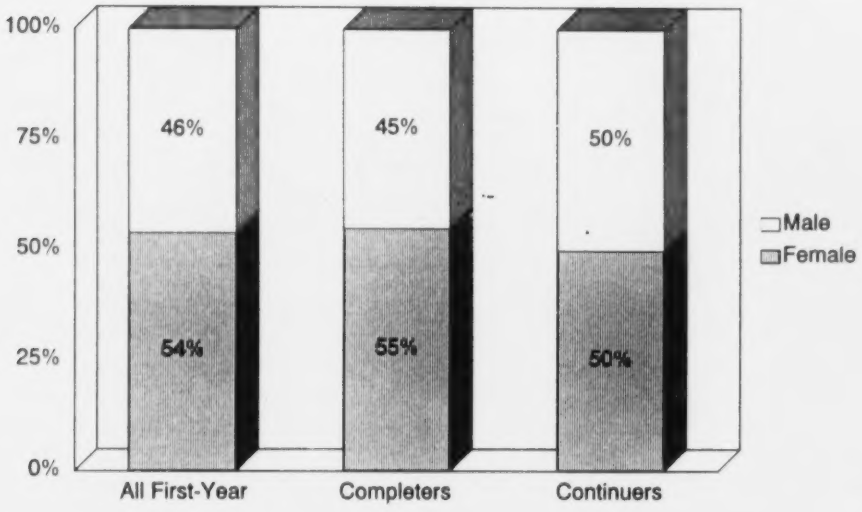


#26. Do you have any dependent children living with you?

Continuers were less likely to have dependent children living with them (15.9%), but there was no difference between the completers and first year students overall. A higher percentage of completers compared to the other groups have only one child living with them.

#27. Are you male or female?

Figure 6 Gender Distribution



Female students were more likely to complete the original program of study, however, they were less likely to continue. The original proportion of male/female was higher for the female students (we had a higher percentage of female students enroled); but the male/female ratio is the same for the continuers. More males continued which has balanced the ratio.

#28. Are you of Aboriginal ancestry?

Aboriginal participation was lower for the completer and continuer cohorts. In 1991, 6.2% of responding first-year students identified themselves as being of Aboriginal ancestry. The percentage of Aboriginals to all completers dropped to 5.0% and 4.4% for the continuers.

#29. Are you disabled?

Disabled students were more likely to continue; however, since we are dealing with very small numbers caution should be applied. 5.3% of continuers identified themselves as being disabled, compared to 4.6% of the completers and 4.9% of the total first year responding students. This may be a result of the employment market and the relative difficulty finding employment. It may be the belief that having more education increases job prospects and opportunities for employment.

5.0 Conclusion

SIAST students demonstrate that "continuous learning" is very much a part of their lives. This study not only demonstrated that students are coming to SIAST from a diverse academic background, but that they are continuously involved in furthering their education by attending various post-secondary educational institutions.

Those students who pursued further studies generally remained in the same broad area in which they had already trained, rather than switching fields altogether. In recent literature, it is documented that people's motives for participating in further education have changed from the 1960s when "personal development goals" were the major motivators. During the 1980s "employment related objectives" became the large motivating force[7] and our Longitudinal Study confirms this trend.

The study also identified that those students who continue their studies differ in some respects from the general first year students. Continuers had higher educational goals and a stronger commitment to these goals when they entered their first year program at SIAST in 1991. They also expressed a stronger belief that further education increases the chances of finding employment and receiving a higher income. Female students are more likely to complete a program, but being male increases the probability of continuing further education. Being single and having no dependent children also increases the likelihood of continuing studies.

[7] Livingstone, D.W. "Lifelong Education and Chronic Underemployment: Exploring the Contradiction," *Transitions: Schooling and Employment in Canada*, 94. Anisef, Paul and Paul Axelrod (editors) (1993). York University, Toronto: Thompson Educational Publishing, Inc.

6.0 Implications

We have clear indications that SIAST students are pursuing "lifelong learning" and they are very mobile in terms of choosing educational institutions that meet their needs. In order to facilitate the mobility of students throughout the system, transferability of credits and the recognition of previously acquired knowledge and learning will become more and more important. We found that, in general, students pursue the same field of study, therefore the concepts of career laddering must be expanded and become integral parts of our post-secondary programs.

The characteristic of any formal educational institution has been its self-containment. Success for students is generally based upon achievement or it is measured in terms of experience provided by the institution. We must now re-examine these criteria and look at the system as a whole. Multiple exit and entry points may better suit the continuing education and training needs of students who have to compete in the job markets of changing economies. The challenge we face is to ease these exchanges or transitions between educational institutions and to give credit for learning acquired at the workplace, while at the same time maintaining the integrity of the certifying system.

7.0 References

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Appendix A

Summary of Respondents

SIAST LONGITUDINAL STUDY
September 1994

Program Name	# of Q. Sent	# of Q. Returned (undeliverable)	# of Q. Completed	Further Training		
				Yes	No	No Answer
Kelsey Institute						
Animal Health Technology (02 - 28)	13	2	4		3	1
Biological Sciences Technology (33 - 52)	6	2	2		2	
Certified Combined Technician (57 - 82)	8		3	2	1	
Chemical Technician (101 - 112)	5		2		2	
Diploma Nursing (115 - 257)	81	8	30	7	20	3
Indian Diploma Nursing (258 - 269)	4		1		1	
ECD - Certificate (278 - 298)	12		4	2	2	
ECD - Diploma (299 - 316)	15	1	9		8	1
Food Service Administration (317 - 344)	17		5		5	
Hotel & Restaurant Admin. (345 - 373)	11	1	1		1	
Library Technician (377 - 402)	20	5	8	2	6	
Medical Laboratory Technology (404 - 470)	32	8	8	1	7	
Medical Radiation Technology (473 - 493)	12	1	6	1	3	2
Professional Cooking (494 - 517)	12	5	1		1	
Recreation & Leisure (519 - 553)	40	1	9	1	8	
Rehabilitation Worker Certificate (554 - 579)	22	4	4	2	1	1
Rehabilitation Worker Diploma (580 - 597)	12		6	2	4	
Retail Meatcutting (599 - 610)	5		1		1	
Youth Care Worker (612 - 622)	4					
CAD/CAM (626 - 654)	14	4	2		2	

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Program Name	# of Q. Sent	# of Q. Returned (undeliverable)	# of Q. Completed	Further Training		
				Yes	No	No Answer
Industrial Electronics Technician (663 - 695)	16	3	5	2	3	
Mechanical Engineering Technology (697 - 738)	24	1	3	1	2	
Micro-computer Management (741 - 767)	17	2	9	1	8	
Agricultural Machinery Technician (768 - 797)	12	1	3	2	1	
Auto Body Repair (799 - 822)	15	2	3	1	2	
Heavy Equipment Mechanics (825 - 875)	26	1	5		5	
Industrial Mechanics (876 - 889)	10	4	1	1		
Machine Shop (890 - 901)	9	1	3	1	2	
Automotive Service Tech - MVMR (902 - 952)	26	2	7	5	2	
Parts Management Technician (953 - 987)	17		5		5	
Power Engineering (995 - 1024)	15	7	2		2	
Refridgeration & Air Conditioning (1026 - 1037)	5		2	2	0	
Welding (1040 - 1077)	21	1	5	3	2	
Total	**558**	**67**	**159**	**39**	**112**	**8**

Program Name	# of Q. Sent	# of Q. Returned (undeliverable)	# of Q. Completed	Further Training		
				Yes	No	No Answer
Palliser Institute						
Auto Body (2001 - 2020)	10	1	3	0	2	1
Building Construction (2021 - 2033)	8	2	2		2	
Professional Cooking (2034 - 2066)	14	2	3	1	1	1
Electrician (2067 - 2077)	7	1				
Masonry (2078 - 2085)	5		2	1	1	
MVMR (2086 - 2123)	12	2	3		3	
Radio-TV Electronics (2124 - 2162)	20	2	9	2	6	1
Welding (2163 - 2180)	5	1	1		1	
Arch. Engineering Technology (2181 - 2210)	12		2		2	
Civil Engineering Technology (2211 - 2240)	15	1	5	1	4	
Computer Engineering Technology (2241 - 2269)	12	1	5	2	3	
Computer-Aided Drafting Tech. (2270 - 2289)	7	1	3		3	
Electrical Engineering Tech. (2290 - 2317)	12		3	3		
Electronics Engineering Tech. (2318 - 2347)	13	1	2		2	
Instrumentation Engineering Tech. (2348 - 2376)	10	1	5	3	1	1
Surveying Engineering Technology (2377 - 2392)	7		1	1		
Water Resources Engineering Tech. (2393 - 2421)	13	2	4	0	3	1
Office Education (2422 - 2455)	19	1	6	3	3	0
Business I (2456 - 2704)	151	19	39	21	18	
Total	**352**	**38**	**98**	**38**	**55**	**5**

Program Name	# of Q. Sent	# of Q. Returned (undeliverable)	# of Q. Completed	Further Training		
				Yes	No	No Answer
Wascana Institute						
Dental Assisting (3005 - 3059)	39	7	15	1	14	
Diploma Nursing (3061 - 3198)	93	20	28	8	20	
Health Record Technology (3200 - 3216)	12	2	6	2	4	
Nursing Assistant (3217 - 3273)	40	9	10	3	7	
Psychiatric Nursing (3276 - 3351)	52	12	14	5	9	
EMT (3352 - 3412)	44	11	14	5	8	1
EMT - Paramedic (3415 - 3425)	5		1		1	
Office Education (3428 - 3588)	86	15	18	5	13	
Auto Body Repair (3590 - 3605)	8	1	7	1	5	1
Building Systems Technician (3610 - 3643)	15	3				
Drafting Technician (3636)	1		1			1
Electronic Communications Technician (3645 - 3656)	7	2	2		2	
Graphic Arts Production (3657 - 3678)	15	1	5	1	3	1
Major Appliance Servicing (3680 - 3686)	6	3	3	1	2	
Machine Shop Practice (3689 - 3701)	9	1	1		1	
MVMR (3708 - 3717)	5		2	1	1	
OPET (3719 - 3721)	3	1				
Photographic Technician (3723 - 3724)	2		1		1	
Welding (3725 - 3741)	10	1	2		2	
Total	**452**	**89**	**130**	**33**	**93**	**4**

Program Name	# of Q. Sent	# of Q. Returned (undeliverable)	# of Q. Completed	Further Training		
				Yes	No	No Answer
Woodland Institute						
Business Computer Programmer (4005 - 4012)	6	2				
Business Administration (4017 - 4052)	17	2	2	1	1	
Carpenter (4054 - 4064)	5					
Chemical Dependency Worker (4065 - 4082)	8	2	2	2		
Professional Cooking (4085 - 4086)	3		1		1	
Corrections Worker (4098 - 4131)	19	8	3	2	1	
Cosmotologist (4132 - 4145)	9	2	1		1	
Driver Training (4149 - 4160)	7		2		2	
ECD (4162 - 4176)	9	2	1	1		
Heavy Equipment Operator (4181 - 4189)	6		1		1	
Integrated Resource Management (4191 - 4205)	13	1	4		4	
Micro-Electronics Technician (4211 - 4215)	4	1				
OPET (4219 - 4222)	3	1				
Radio-TV Repair (4230 - 4233)	3					
Office Technology (4224 - 4265)	17	2	2	1	1	
Truck & Transport Mechanical Repair (4267 - 4275)	4		2	1	1	
Welding (4280 - 4289)	3		1		1	
Heavy Equipment Mechanic - M.L. (4291 - 4298)	1	1				
Total	**137**	**24**	**22**	**8**	**14**	**0**
SIAST TOTAL	**1,499**	**218**	**409**	**118**	**274**	**17**

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Appendix B

Questionnaire

SIAST
SASKATCHEWAN INSTITUTE OF APPLIED SCIENCE AND TECHNOLOGY

Longitudinal Study Questionnaire

September 1994

1. In what SIAST program were you enroled in September 1991?

2. Did you complete this program?

☐ Yes When? ☐ 1992 ☐ 1993

After completing your program, did you take any further training?

☐ Yes ☐ No *(go to #7)*

☐ No Have you taken any further training since you were enroled in this program?

☐ Yes ☐ No *(go to #6)*

3. Where have you taken the additional training? *(Check as many as apply and indicate program name.)*

SIAST:
- ☐ Kelsey _____
- ☐ Palliser _____
- ☐ Wascana _____
- ☐ Woodland _____

University:
- ☐ U of S _____
- ☐ U of R _____
- ☐ other university _____

Other:
- ☐ Regional College _____
- ☐ Private Trainer _____
- ☐ other _____

4. Why did you take this training after the 1991 program? *(If more than one reason applies, rank the answers with the most important being number one.)* Also please provide your own reason

- ☐ more job opportunities
- ☐ higher pay
- ☐ other *(specify)*_____
- ☐ greater interest in this field
- ☐ less difficult program

(Please turn to Page 2)

5. Did you complete the program(s) mentioned in #3? *(If more than one program was taken, list completion or reasons for withdrawal as comments below.)*

☐ Yes, when? _____ *(go to #7)* ☐ No

6. Why did you not complete the program?

☐ took leave of absence
☐ transferred to other institution
☐ changed my career plan
☐ had financial problems
☐ other*(specify)*_____
☐ wanted practical experience
☐ family responsibilities
☐ found course work too difficult
☐ had a job offer

7. What is your present status? *(Check as many as apply.)*

☐ full-time employed
☐ part-time employed *(less than 30 hours per week)*
☐ self-employed
☐ going to school for further training
☐ not employed, but not looking for work
☐ not employed and looking for work

8. Are you currently working in the field in which you trained in September 1991?

☐ Yes How long have you worked in this field? _____ years _____ months

☐ No Have you worked at all in this field?

☐ Yes How long? _____
☐ No Why not? _____

9. Please comment on how your training relates to job opportunities. Do you think you will pursue further training. If so, in what areas and why?

Thank you for completing this questionnaire.

Appendix C

Comments
(under separate cover)